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Plant Science Department

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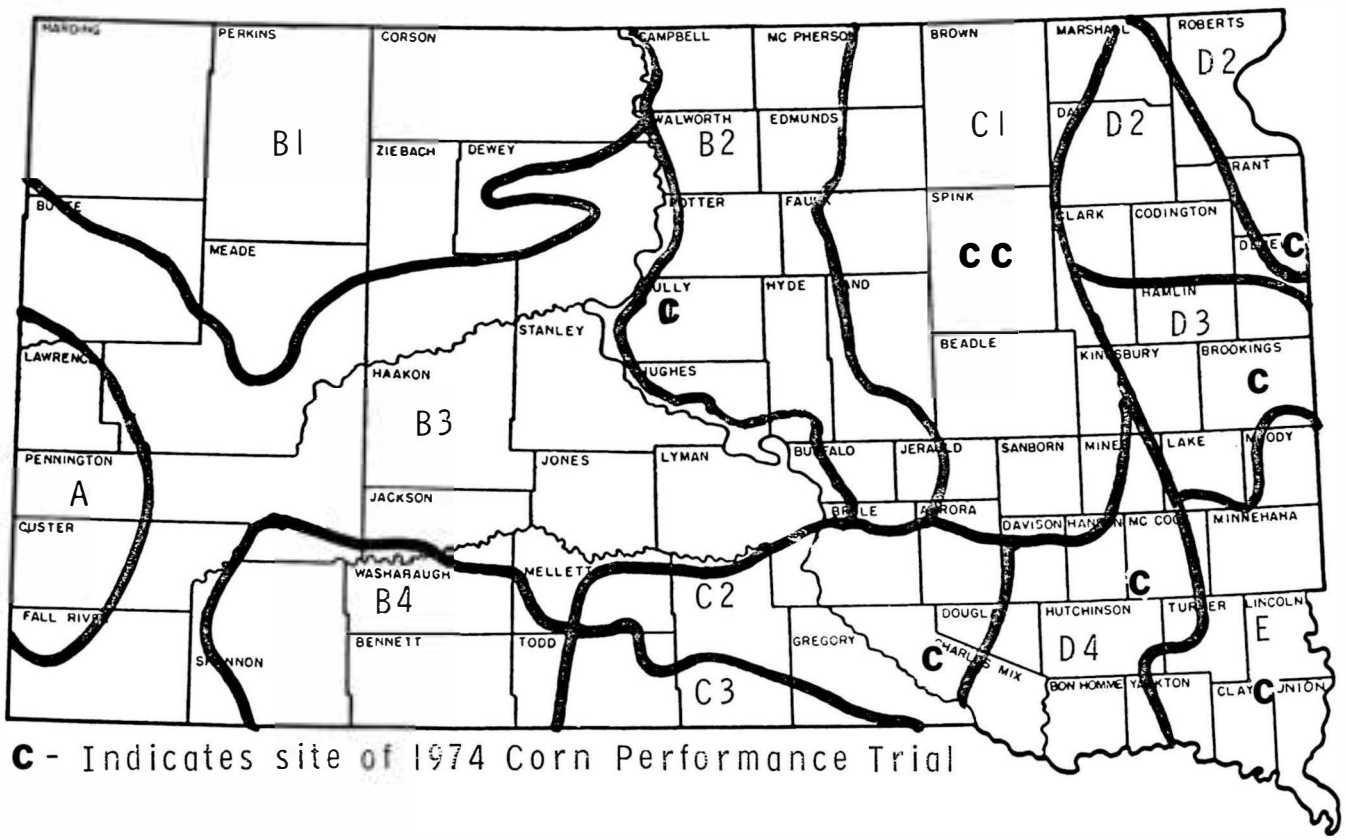
LISTING OF TABLES

CROP ADAPTATION AREAS



1974 Corn Performance Trials

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The relative performance of corn hybrids grown under similar environmental conditions is evaluated in this report for the 1974 season. Information in the accompanying tables includes grain yields in bushels per acre, moisture percentage of either ear or shelled corn at harvest, performance scores and other related information. Records of the corn hybrids harvested in 1974 and available two-, three-, and four-year averages of yield, moisture and stalk lodging percentages are also presented. The trials reported were conducted under the Plant Science Department program in Crop Performance Testing, Agricultural Experiment Station, South Dakota State University.

Location of the 1974 Trials

Trials were located in the crop adaptation areas marked on the accompanying South Dakota map. The exact locations of the trials and dates of seeding and harvest are included in Table 1. Two trials were relocated in 1974, i.e., Area B2 and D1. The B2 trial was moved to near Agar in Sully County and the D1 trial was located in northeast Deuel County. No data are presented for the Sully County trial as it had "burned-up" by late August and the cooperator ensiled the forage that remained. The soil classification, laboratory analysis of soil samples taken and fertilizer applied at those sites is given in Table 2.

Weather and Climatic Conditions

Climatic data (Table 3) for the 1974 corn growing season, May-October, are based upon information obtained from a U.S. Weather Bureau station reasonably near the trial. Data are presented for all but the Geddes area. Stations are located at all other sites but Agar and Deuel County so data from official stations at Onida and Milbank are presented. Precipitation quantities would vary from the actual site to the recording station but temperatures are comparative over a much wider area and considered applicable to the trial area.

Precipitation was limited during most of the growing season at most of the trial sites. Several trials had been seeded before most of the May precipitation had occurred. Trials seeded after the May precipitation period did as well or better than the seedings that were in cold, rain-soaked soil for 10-12 days. A striking

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The assistance of the following individuals is appreciated: D. B. Shank of the Plant Science Department; Burton Lawrensen, Herb Lund and Ray Ward of the substations; and cooperators William Fijala, John Heaton, Clifford Hofer and Mike Mikkelson.

Table 1. Location of the 1974 Corn Performance Trials

Area	County	Location	Post Office	Date Seeded	Date Harvested
B2	Sully	M. Mikkelson Farm, 7W 1N	Agar	May 24	ensiled
C1-dry	Spink	James Valley Res. Farm, 6E	Redfield	May 29	Oct. 24
C1-irr.	Spink	James Valley Res. Farm, 6E	Redfield	May 29	Oct. 24
C2	Charles Mix	Wm. Fijala Farm, 2E 1N	Geddes	May 20	Oct. 4
D1	Deuel	I. Heaton Farm, 1W 8N	Gary	May 17	Oct. 7
D3	Brookings	Plant Science Farm, 2 NE	Brookings	May 9	Oct. 21
D4	McCook	C. Hofer Farm, 1S	Bridgewater	May 7	Oct. 10
E	Clay	SE Experiment Farm, 7W 3S	Beresford	May 22	Oct. 16

example is the field at Bridgewater. The performance trial was part of a larger field seeded May 5 and was subsequently considered nearly a total loss by ASCS. The field seeded to the immediate west on the same quarter was seeded on May 22 and escaped damages from stand reduction and was delayed long enough to miss the extremely hot temperature and winds which prevailed when tasseling and pollination were taking place in the field. The field seeded May 22 yielded over 40 bushels per acre compared to literally nothing but stunted, barren stalks on the field seeded May 5. The protection of an adjacent farm shelterbelt on the south side of the road apparently afforded enough protection to the plots so some yield was realized. The results indicate the great variability found in the field (Table 7).

Moisture was adequate for uniform germination and stands at most sites. Cold soil temperatures had a greater affect on stands. Precipitation amounts recorded dropped drastically after May and prospects for a decent yield diminished daily, especially after early August except at the site in Deuel County. Over 3 inches of rain was recorded in the northeast part of the state in mid-August. The field north of Gary produced excellent yields.

High temperatures of 90 degrees or higher were quite common in July and early August (Table 3). In areas where precipitation had been very limited, moisture stress became very severe. Tasseling and silking were erratic and fertilization failed to be effective. Many ears had only a few blisters on a very few immature cobs. These stresses caused other problems in the ears that did form. Husks did not develop on some hybrids and the ears extended way beyond the husks. Where this occurred smut seemed to invade the ear and was found on the majority of the ears of those hybrids.

Table 2. Laboratory analysis, soil classification and fertilizer applied to the 1974 corn performance trial fields

Area	Classification	% O.M.	P lb/A	K lb/A	pH	Fertilizer applied: Preparation or method	N	P	K
B2	Agar SiCl	2.9	21	980	7.0	fall plowed, spring disc	0	0	0
C2	Highmore SiCl	4.3	140	1000	6.6	manure, fall plow & disc	0	0	0
D4	Clarno SiCl	3.0	48	840	6.2	fall plowed, disced	80	21	7
E	Egan SiCl	3.0	50	960	6.5	fall plowed, disced in	110	39	29

Table 3. Temperature and precipitation data for the 1974 corn growing season in South Dakota

Location and District	Month	Month mean temp.	Departure from normal	Av. departure	Days 90°+	Month total	Departure from normal	Total departure
		Temperature, degrees F.				Precipitation, inches		
Onida[a]	May	56.3	b			3.38	b	
	June	68.0			8	0.57		
B2	July	80.8			26	1.64		
	Aug.	70.2			9	1.11		
	Sept.	60.1			3	0.50		
	Oct.	52.0				0.67		
	First freeze Sept. 28 - 28°					7.87		
Redfield 6E	May	53.9	b			4.88	b	
	June	65.2			3	1.22		
C1	July	77.9			23	2.68		
	Aug.	68.2			7	0.91		
	Sept.	57.8			3	0.00		
	Oct.	52.9				0.00		
	First freeze Sept. 3 - 28°					9.69		
Milbank	May	55.8	-1.9			2.21	-0.84	
	June	67.8	0.5		5	1.95	-2.36	
D1	July	77.8	5.0		20	1.72	-1.10	
	Aug.	69.1	-2.4		4	3.30	0.73	
	Sept.	59.3	-1.8		2	0.80	-1.23	
	Oct.	51.3	-0.2			0.74		-4.80
	First freeze Sept. 22 - 23°					10.72		
Brookings	May	52.2	-4.0			4.46	1.26	
	June	63.5	-2.2		3	1.57	-3.01	
D3	July	74.4	3.3		13	1.96	-0.88	
	Aug.	65.0	-4.6		1	2.97	0.11	
	Sept.	54.4	-4.6		1	0.09	-2.15	
	Oct.	45.4	-4.1			0.42	-0.60	-4.27
	First freeze Sept. 3 - 25°					11.47		
Bridgewater	May	57.9	b			3.34	b	
	June	67.8			8	2.33		
D4	July	79.5			26	1.58		
	Aug.	69.9			6	2.72		
	Sept.	60.4			6	0.37		
	Oct.	50.0				0.45		
	First freeze Sept. 22 - 29°					10.79		
Centerville	May	56.1	-4.6			3.87	0.39	
6E	June	65.7	-4.5		5	3.10		
	July	76.8			19	1.76	-1.35	
E	Aug.	66.5	-7.4		4	2.46	-0.58	
	Sept.	57.1	-6.6		3	0.94	-1.74	
	Oct.	49.3				1.04		
	First freeze Sept. 3 - 29°					13.27		

a - All data based upon reports of Monthly Climatological Data, U.S. Department of Commerce, Ashville, NC.

b - Departures are figured from 30 years data. This station has not been in operation for that long a period.

Lodging is frequently quite a serious problem when plants have been subjected to serious stress. This was not a common problem at any trial site during 1974.

Seeding was accomplished after any killing frost occurred in the spring. A killing frost (28°) occurred on September 3 at several locations in eastern South Dakota. This hastened maturity for some hybrids but for others it caused further delay to plants already suffering from heat and drouth stress. However, below normal monthly mean temperatures also contributed to reduced yields (Table 3). Much of the hot temperature stress occurred during the period, July25-August 10, when most adapted hybrids would normally develop tassels and silks and shed pollen.

Grain quality was quite varied within entries at a location. Some hybrids had well-developed kernels of good weight while others produced very soft, poorly developed, chaffy kernels and had other down-grading faults.

Hybrid Entry Procedure

Hybrids entered are submitted by participating commercial concerns and they designate the locations where their entries are to be grown. Hybrids registered with the South Dakota State Department of Agriculture prior to March 29, 1974 were eligible for entry. A fee was charged for each entry in each area except for hybrids included by Agricultural Experiment Station personnel. Either closed or open pedigree hybrids were eligible and each was allowed to be entered once in each adaptation area. No more than seven entries from one concern were accepted for each location. A listing of the firms, with brands and varieties entered, is presented in Table 19.

Experimental Procedure

The entries included in each trial were seeded in four or more replications. The number of replications depended upon the site and populations under trial. Plots of individual hybrids were located at random within each location. Available space, soil type and variability, and other factors determined the plot size and number of replications. The plot size, populations and related data are presented in Table 4.

Table 4. Field methods for the 1974 corn trial sites

Area	Table No.	Number of Replications Harvested	Method of Seeding	Population Obtained	Row Number of	Row Width, Inches	Row Length, Feet
B2	--	---	hand	----	1	40	35
C1-dry		4	drilled	12,900	1	36	33
C1-irr.		3	drilled	13,900	1	36[a]	32
C1-irr.		3	drilled	14,400	1	36[a]	32
C2		4	drilled	11,800	1	40	32
D1		3	hand	12,300	1	38[a]	32
D1		3	hand	16,725	1	38[a]	32
D3		3	drilled	11,830	1	36[b]	32
D3		3	drilled	14,490	1	36[b]	32
D4		3	drilled	15,003	1	38	32
D4		---	drilled	----	1	38	32
E		3	drilled	16,000	1	30[b]	32
E		3	drilled	19,300	1	30[b]	32

a - No significant differences between populations; means of two reported in tables.

b - Yields from lower populations significantly better than higher populations.

Recommended organic phosphate insecticides were used at all locations for corn rootworm control. A recommended short-residue preemergence herbicide was banded over the row at seeding at all but one site. Atrazine was sprayed over the entire plot area at Brookings for grassy weed control.

Six of the trials were seeded as drilled corn using cone-seeders mounted above commercial flexi-planter units with double disc openers. The trial at the Agar site was seeded by hand because of equipment scheduling problems and the Deuel County trial was begun with the mechanical unit but equipment failures necessitated completing the bulk of the seeding with hand planters.

The planting rate was 15% more kernels than the number of plants desired. Plots were thinned to the desired stand where necessary. Stands at thinning were at desired levels at all but one location, namely Redfield, irrigated. The dry weather contributed to further decline in stand and the populations were down from desired levels at Bridgewater and Brookings when counts were made in mid-August. The lower levels may have been beneficial in the presence of the severe stresses that occurred. Table 4 indicates those trials where two populations were grown. Lower populations produced significantly greater yields at Brookings and Beresford.

Measurements of Performance

Yield. The yield reported for each hybrid is the average obtained from the yield weights of all replications, expressed as bushels per acre of No. 2 corn at 15.5% moisture. Varieties of equal potential may yield differently because of variations in slope, soil fertility and stand. Mathematical determinations have been made to determine whether yield differences obtained were caused by variations in environment or were true varietal differences. The variations were great in some 1974 trials.

Moisture content. The moisture content of each entry is expressed as the percentage of moisture in the ear corn or shelled corn at the time of harvest (see Table 5). Moisture content is inversely related to maturity. Because maturity is of prime importance in South Dakota, these figures are of considerable importance in evaluating entries.

Lodging. Root lodging was not a serious problem in 1974. The only damage apparent was in the Southeast Farm trial. In spite of severe stresses which normally contribute to a high percentage of stalk lodging, minimal lodging was present. The stresses contributed to shorter plants, smaller ears with less weight, lower incidence of some diseases and other factors that often cause stalk lodging.

Dropped ears were not a problem of great concern. Few ears were noted on the ground. In cases where loss was minimal no effort was made to include the ears as it is a penalty of machine harvesting in commercial operations.

Performance Rating. Undue delays should be held to a minimum if farm operations are to be efficient and provide high economic returns. Prevention of harvest operation delays and reduction of additional drying costs are possible if an operator can produce sound, dry corn. Grain yield and moisture percentages are of prime importance. To the cash grain operator who does not turn livestock into the field after harvest, the better stalks stand so that the ears will go through his harvesting machinery, the higher will be his return per acre. Because of the importance of the three factors--yield, dry matter and upright stalks--the three results in the tables presenting this information are used to determine a rating or performance score.

Table 5. Harvest methods and moisture determinations for the 1974 trials

Area	Harvest method	Samples used for Moisture Determinations	Moisture Determined
C1-dry	Picker-sheller	Shelled corn	Electronically
C1-irr.	Picker-sheller	Shelled corn	Electronically
C2	Hand picker	Ear sections	Oven-dried
D1	Picker-sheller	Shelled corn	Electronically
D3	Picker-sheller	Shelled corn	Electronically
D4	Picker-sheller	Shelled corn	Oven-dried[a]
E	Picker-sheller	Shelled corn	Electronically

a - All samples put through oven as samples were too small to use meter.

The yields in each test were converted to percentages by comparing them to the mean yield of the test. Similar calculations were made for moisture and stalks broken below the ear at harvest time after first subtracting the moisture content of stalks broken from 100% so that the varieties could be ranked according to their ability to produce sound, upright corn rather than soft, lodged corn.

The performance ratings that appear in the tables were computed as follows:

$$\frac{(\text{Yield percentage} \times 50) + (\text{Dry matter percentage} \times 35) + (\text{Percent upright stalks} \times 15)}{100}$$

Use of the Tables. South Dakota conditions are generally quite different from those in the mid-western Corn Belt. Most of the crop adaptation areas have conditions common to the Northern Plains: i.e., limited frost-free growing periods, limited precipitation and high summer temperatures. Corn hybrids that provide a satisfactory yield of harvestable corn that can be stored without additional costly handling are desirable. The performance score provides information on these factors in a weighted fashion.

In choosing a hybrid, first check those yielding the most. Then look for entries with below average moisture and good standability. The results will generally be similar to that of the performance score. Finally, check the performance over "a several-year period", if available, as the average of several years is considerably more reliable than the data from only one year. When planting a new hybrid the acreage should be limited until the hybrid's adaptation to the environment of the particular farm is known.

Table 6. 1974 Corn Performance Trial, Area D1, I. Heaton Farm, Gary

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
FUNK'S G-4444	N 2X	110.2	0.0	0.0	0.0	26.7	2
ACCO UC 3301	N 2X	109.1	0.0	0.0	0.0	27.6	8
PAYCO SX 680	N 2X	106.8	0.0	0.5	0.0	21.0	1
SOKOTA SS-67	N M2X	106.7	0.0	1.0	0.0	26.7	10
SDAES EX 103	N 2X	105.5	0.0	0.0	0.0	22.0	4
PRIDE R-200A	N 2X	104.5	0.0	0.5	0.0	20.3	3
SDAES EX 100	N 3X	104.5	0.0	0.0	0.0	22.2	6
SDAES EX 82	N 3X	104.4	0.0	0.5	0.0	20.7	5
FUNK'S G-4321	N 2X	104.3	0.0	0.0	0.0	24.3	9
SOKOTA TS-67	N 2X	103.2	0.0	0.0	0.0	26.5	17
PAYCO SX 775	N 2X	103.0	0.0	0.0	0.0	23.1	12
O'S GOLD SX 1100	N 2X	103.0	0.0	0.0	0.0	25.0	15
PRIDE R-221	N 3X	101.8	0.0	0.5	0.0	18.8	7
PIONEER 3932A	N 2X	101.4	0.0	1.0	0.0	20.7	11
TROJAN TXS 94	N 2X	100.7	0.0	0.5	0.0	21.2	13
RENK RK 6	N 2X	99.8	0.0	0.0	0.0	20.4	14
SDAES PP 183	N 3X	99.2	0.0	0.5	0.0	20.8	16
RENK RK 11AA	N 2X	98.4	0.0	1.0	0.0	22.1	20
ACCO DC 147	N 4X	98.4	0.0	1.0	0.0	20.8	18
FUNK'S G-4252	N 3X	97.9	0.0	0.0	0.0	20.6	19
FUNK'S G-4288	N 3X	97.7	0.0	0.5	0.0	25.5	27
FARMERS 4229	N 2X	96.4	0.0	0.0	0.0	22.9	22
SDAES SD 200	M 2X	95.5	0.0	1.5	0.0	18.6	21
SOKOTA MS-59A	N M2X	95.4	0.0	0.5	0.0	22.5	26
PIONEER 3780	N 2X	95.0	0.0	0.0	0.0	24.2	29
O'S GOLD SX 990	N M2X	94.9	0.0	0.0	0.0	21.9	24
ACCO UC 1901	N 2X	94.3	0.0	0.5	0.0	20.4	23
PIONEER 3785	N 2X	94.2	0.0	0.5	0.0	20.9	25
ACCO UC 2301	N 2X	92.4	0.0	0.0	0.0	22.5	31
FUNK'S G-4366	N 3X	92.3	0.0	0.5	0.0	27.2	35
SDAES EX 102	N 3X	90.5	0.0	0.0	0.0	20.5	32
FARMERS 4434	N 2X	90.4	0.0	0.0	0.0	18.4	28
TROJAN TXS 92	N 2X	90.1	0.0	0.0	0.0	19.4	30
SDAES SD 250	T 4X	89.3	0.0	2.6	0.0	21.1	34
SDAES EX 101	N 3X	88.5	0.0	5.4	0.0	23.2	37
TROJAN TX 90	N 3X	87.9	0.0	0.0	0.0	20.2	33
PIONEER 3965	N 3X	84.4	0.0	1.5	0.0	18.2	36
FUNK'S G-WX 520	N 2X	83.9	0.0	0.0	0.0	27.4	42
FUNK'S G-4180	N M2X	83.3	0.0	0.0	0.0	20.3	38
SDAES SD 220	T 4X	82.0	0.0	2.0	0.0	18.6	39
TROJAN TXS 85	N 2X	81.0	0.0	0.0	0.0	18.8	40
PIONEER 3976	N 2X	79.9	0.0	0.0	0.0	18.7	41
ACCO UC 3201	N 2X	79.5	0.0	0.0	0.0	27.0	45
PRIDE R-290	N 2X	78.5	0.0	1.0	0.0	22.9	43
ACCO U 324	N 3X	74.4	0.0	1.5	0.0	19.2	44
PRIDE 4404	N 2X	73.8	0.0	0.0	0.0	23.6	46
Mean		94.5		0.5		22.1	
Standard error		4.9					

Table 7. 1974 Corn Performance Trial, Area D4, Clifford Hofer Farm, Bridgewater

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
FUNK'S G-4445	N 2X	31.6	0.0	5.3	0.0	26.5	1
ACCO UC 4201	N 2X	27.4	0.0	0.7	0.0	24.7	2
SOKOTA MS-59A	N M2X	26.0	0.0	1.6	0.0	23.1	3
PRIDE R-522	N 2X	25.7	0.0	0.0	0.0	26.1	4
MC CURDY MSP 111B	N 3X	24.8	0.0	1.4	0.0	20.5	5
PIONEER 3596	N 2X	24.7	0.0	0.7	0.0	22.0	6
FUNK'S G-WX520	N 2X	23.9	0.0	1.5	0.0	25.7	7
PIONEER 3535	N 2X	23.9	0.0	0.0	0.0	27.0	8
PRIDE R-450	N 2X	23.3	0.0	0.0	0.0	27.8	10
PIONEER 3543	N 3X	23.0	0.0	0.0	0.0	23.5	9
FUNK'S G-4366	N 3X	22.9	0.0	0.0	0.0	25.4	11
ASGROW RX 64	N 2X	22.0	0.0	0.0	0.0	28.0	13
WILSON 1500	N M2X	22.0	0.0	0.0	0.0	27.1	12
FUNK'S G-4321	N 2X	21.0	0.0	3.6	0.0	25.1	14
ASGROW RX 58	N 2X	20.2	0.0	1.4	0.0	25.1	17
HORIZON MYT 120	N 2X	20.2	0.0	0.0	0.0	23.8	15
TODD M30	N 2X	20.1	0.0	2.4	0.0	27.0	18
ACCO UC 3301	N 2X	19.7	0.0	0.7	0.0	27.0	19
HORIZON KR 99	N 2X	19.6	0.0	0.8	0.0	21.3	16
MC CURDY 72-17	N M2X	18.8	0.0	0.0	0.0	26.0	20
ACCO UC 4601	N 2X	18.5	0.0	0.0	0.0	28.7	23
MC CURDY MSX 46	N 2X	18.3	0.0	0.0	0.0	25.2	21
FARMERS 4525XL	N 2X	18.2	0.0	0.7	0.0	26.8	24
MC CURDY 3X3	N 2X	18.2	0.0	0.0	0.0	25.4	22
DISCO SX 1104	N 2X	17.8	0.0	1.4	0.0	25.3	25
SDAES PP 197	N 3X	17.5	0.0	0.0	0.0	29.6	28
ACCO U 378	N 3X	17.5	0.0	0.0	0.0	31.1	30
CURRY SC-145	N 2X	17.5	0.0	0.0	0.0	26.7	26
HORIZON MYT 121	N 2X	17.4	0.0	4.1	0.0	27.3	29
WILSON 1016	N 2X	17.1	0.0	1.5	0.0	25.3	27
WILSON 2317	N 2X	16.7	0.0	0.7	0.0	27.1	31
SOKOTA SS-67	N M2X	15.9	0.0	0.8	0.0	27.1	32
MC CURDY MSX 44A	N 2X	15.7	0.0	0.7	0.0	26.4	33
TROJAN TXS 108A	N 2X	15.7	0.0	0.7	0.0	26.4	33
GREEN ACRES L19	N 4X	15.6	0.0	0.7	0.0	28.7	35
FUNK'S G-H0562	N M2X	15.3	0.0	0.0	0.0	29.9	37
RENK RK 66	N 2X	14.5	0.0	0.0	0.0	26.4	38
TODD 330	N 3X	14.4	0.0	2.4	0.0	23.0	36
PAYCO SX 1093	N 2X	14.3	0.0	0.0	0.0	34.5	44
ACCO U 348	N 3X	14.1	0.0	1.5	0.0	24.6	39
GREEN ACRES 401	N M3X	14.0	0.0	0.7	0.0	27.1	40
CURTIS 426	N 2X	13.9	0.0	0.0	0.0	31.4	43
FARMERS 4425XL	N 2X	13.4	0.0	2.0	0.0	26.4	42
ACCO U 370	N 3X	13.3	0.0	0.7	0.0	24.7	41
FUNK'S G-4465	N M2X	13.3	0.0	0.0	0.0	29.0	45
O'S GOLD SX 1100	N 2X	12.2	0.0	3.0	0.0	26.4	47
CURRY TC-343	N 3X	12.1	0.0	0.0	0.0	25.1	46
SOKOTA TS-67	N 2X	11.8	0.0	2.9	0.0	26.4	48
TROJAN TX 111	N 3X	11.4	0.0	0.0	0.0	27.1	51
PAYCO SX 865	N 2X	11.3	0.0	1.6	0.0	27.2	52
FUNK'S G-4444	N 2X	11.2	0.0	0.8	0.0	25.6	50
ASGROW RX 60	N 2X	11.1	0.0	0.0	0.0	23.4	49
PIONEER 3571	N M2X	11.1	0.0	0.0	0.0	28.8	53
WILSON 1017	N 2X	10.7	0.0	0.6	0.0	26.3	54
TROJAN TXS 102	N 2X	10.6	0.0	0.0	0.0	27.3	55
O'S GOLD SX 2200A	N 2X	10.3	0.0	0.0	0.0	26.4	56
SOKOTA TS-82	N 2X	10.2	0.0	0.0	0.0	30.0	58
ACCO DC 598	N 4X	10.1	0.0	2.1	0.0	27.6	57
DISCO SX 17	N 2X	9.5	0.0	2.0	0.0	26.6	59
PRIDE R-728	N 3X	8.9	0.0	0.0	0.0	25.6	60
RENK RK 77	N 2X	8.8	0.0	0.0	0.0	29.6	61

Table 7. Continued

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
MC CURDY MSP 733	N 3X	8.5	0.0	0.0	0.0	29.1	62
O'S GOLD SX 5500A	N 2X	8.3	0.0	0.0	0.0	30.0	63
MC CURDY 37M	N M2X	8.1	0.0	0.0	0.0	29.2	64
SDAES PP 178	N 3X	7.2	0.0	0.7	0.0	26.9	65
TODD M58	N 2X	4.1	0.0	0.0	0.0	27.4	66
CURRY SC-150	N 2X	2.2	0.0	0.0	0.0	29.2	67
Mean		15.9		0.8		26.7	
Standard error		4.8					

Table 8. Area D4 2-, 3-, and 4-year yield, moisture and stalk lodging averages of hybrids, 1971-74

BRAND & VARIETY	ACRE YIELD, B/A			STK LODGING, PCT			GRAIN MOIST, PCT		
	4-YR	3-YR	2-YR	4-YR	3-YR	2-YR	4-YR	3-YR	2-YR
ACCO UC 3301	68	61	49	8	9	13	24	26	25
ACCO U 378	72	63	49	2	2	3	29	30	28
ACCO DC 598			45			3			25
CURRYS SC-150			44			2			28
CURRYS TC-343			51			4			23
DISCO SX-17		56	45		5	7		26	24
FARMER'S 4425			43			9			25
FARMER'S 4525			48			8			25
FUNK'S G-4321			48			9			23
FUNK'S G-4366			49			8			23
FUNK'S G-4444			47			5			24
FUNK'S G-4465			45			5			26
MCCURDYS 3X3		62	49		7	9		27	24
MCCURDYS MSP 111B			48			5			20
O'S GOLD SX 1100			46			8			24
PAYCO SX-865			46			11			25
PAYCO SX-1093		61	49		1	1		32	32
PIONEER 3571	64	53	49	2	3	4	26	26	26
PRIDE R-450	68	63	51	3	4	5	25	27	25
PRIDE R-522			52			12			24
PRIDE R-728	63	53	40	6	8	11	27	27	24
RENK RK-66		60	50		2	3		27	25
SDAES PP 178			43			3			25
TODD 330			32			14			21
TROJAN TXS 102		65	45		5	7		25	25
TROJAN TXS 108A			56			5			25
WILSON 1016	66	61	46	6	7	9	24	25	24
WILSON 1017			50			8			25

Table 9. 1974 Corn Performance Trial, Area E, Southeast Experiment Farm, Beresford

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
P-A-G SX 397	N 2X	75.6	2.0	27.9	0.0	20.2	2
P-A-G SX 69	N M2X	74.9	8.4	2.5	0.0	25.0	1
FUNK'S G-4444	N 2X	72.5	22.9	2.1	0.0	23.8	4
WILSON 1500	N 2X	72.0	4.8	1.1	0.0	22.5	3
MC CURDY MSX 44A	N 2X	71.9	23.3	2.6	0.0	23.7	6
PIONEER 3388	N M2X	71.6	0.0	1.0	0.0	26.8	10
FUNK'S G-4445	N 2X	71.5	8.5	4.0	0.0	23.1	7
CARGILL 930	N M2X	71.3	9.0	17.0	0.0	27.1	16
ACCO UC 3301	N 2X	71.2	7.4	5.8	0.0	24.0	9
PRIDE R-522	N 2X	70.8	0.5	1.5	0.0	21.7	5
CURRY'S SC-144	N 2X	70.6	1.6	1.6	0.0	23.4	8
FUNK'S G-4366	N 3X	68.6	6.4	5.9	0.0	20.6	11
PAYCO SX 865	N 2X	68.6	13.5	1.6	0.0	24.8	12
GREEN ACRES S66	N M2X	67.8	3.0	1.0	0.0	28.0	17
ASGROW RX 58	N 2X	67.2	21.3	1.0	0.0	24.1	14
WILSON 1017	N 2X	66.5	0.5	7.1	0.0	20.5	13
ASGROW RX 64	N 2X	65.3	9.6	2.0	0.0	23.7	18
RENK RK 66	N 2X	65.1	11.3	1.1	0.0	20.6	15
FUNK'S G-4465	N M2X	64.8	10.3	3.6	0.0	26.1	23
CARGILL 890	N M2X	64.7	2.0	5.9	0.0	22.4	20
GREEN ACRES 630	N 3X	64.4	2.7	1.6	0.0	26.2	24
PRIDE 8824	N 2X	64.4	0.0	5.6	0.0	29.4	29
DISCO SX 1104	N 2X	64.2	7.7	1.0	0.0	23.4	21
FUNK'S G-4321	N 2X	64.2	5.2	0.5	0.0	22.2	19
DISCO SX 17	N 2X	63.7	18.1	3.6	0.0	23.0	22
HORIZON MYT 544	N 3X	62.7	0.0	0.0	0.0	29.2	32
CARGILL 449	N 3X	62.3	5.7	1.0	0.0	22.8	25
CURRY'S SC-145	N 2X	61.6	8.8	0.0	0.0	21.9	26
ACCO UC 3601	N 2X	61.2	11.1	0.0	0.0	28.8	34
ACCO UC 6601	N 2X	60.8	0.5	1.5	0.0	24.5	30
TODD MX69	N M2X	60.7	0.0	0.0	0.0	28.3	35
PIONEER 3535	N 2X	60.3	2.0	3.5	0.0	21.4	28
WILSON 1016	N 2X	60.2	13.8	1.6	0.0	23.7	31
TROJAN TXS 111	N 3X	59.8	0.0	5.6	0.0	23.4	33
TROJAN TXS 113	N 2X	59.0	0.0	2.6	0.0	29.5	39
TODD M30	N 2X	58.6	14.7	3.7	0.0	25.8	36
ACCO U 378	N 3X	58.5	2.5	3.0	0.0	30.2	41
HORIZON KR 103	N 2X	58.5	18.9	2.0	0.0	18.2	27
SOKOTA MS-88	N M2X	57.2	1.5	0.0	0.0	28.4	40
FUNK'S G-H0562	N M2X	56.9	2.1	4.8	0.0	29.1	45
FUNK'S G-WX520	N 2X	56.2	6.5	0.5	0.0	22.8	38
PRIDE R-803	N 2X	55.4	5.0	1.0	0.0	27.4	44
PIONEER 3543	N 3X	55.4	1.5	0.5	0.0	21.1	37
PAYCO SX 1093	N 2X	54.5	1.1	0.5	0.0	34.3	52
PIONEER 3366	N 2X	54.2	6.7	2.1	0.0	30.5	48
MC CURDY MSP 733	N 3X	54.0	0.5	2.1	0.0	27.5	47
HORIZON KR 105	N 3X	53.6	2.5	0.0	0.0	24.0	43
ACCO U 348	N 3X	53.5	14.7	0.5	0.0	21.8	42
PRIDE 6694	N 2X	52.2	1.6	2.6	0.0	29.2	51
PRIDE R-793	N 3X	51.8	6.4	0.5	0.0	26.7	49
MC CURDY MSX 46	N 2X	51.7	24.9	1.0	0.0	20.8	46
MC CURDY MSX 55A	N 2X	50.3	4.6	3.1	0.0	29.5	54
ACCO UC 4201	N 2X	50.3	25.1	0.0	0.0	25.0	50
ACCO U 370	N 3X	49.2	2.6	14.3	0.0	23.0	53
MC CURDY MSX 60	N 2X	48.0	4.0	0.0	0.0	29.8	56
TODD M58	N 2X	46.0	3.2	2.1	0.0	25.0	55
PRIDE R-728	N 3X	43.9	1.0	8.9	0.0	20.5	57
SOKOTA SK-90	N 3X	43.5	1.0	1.0	0.0	29.6	58
MC CURDY MSX 84	N 2X	41.3	6.7	0.0	0.0	29.8	61
TROJAN TXS 108A	N 2X	41.0	10.4	0.5	0.0	26.4	59
SDAES PP 197	N 3X	40.6	11.4	0.5	0.0	29.4	62

Table 9. Continued

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
O'S GOLD SX 2200A	N 2X	39.2	4.7	0.0	0.0	24.2	60
MC CURDY MSX 67	N 2X	38.7	3.1	0.0	0.0	28.3	64
P-A-G 344	N 3X	38.6	4.1	0.0	0.0	28.4	65
GREEN ACRES L19	N 4X	37.4	14.5	1.0	0.0	27.8	66
WILSON 2317	N M2X	37.3	8.6	0.5	0.0	24.7	63
CURTIS 426	N 2X	35.7	9.7	0.0	0.0	31.0	67
CURRY'S SC-150	N 2X	34.7	4.1	0.5	0.0	31.8	68
SOKOTA TS-82	N 2X	32.2	7.5	1.5	0.0	30.0	69
RENK RK 77	N 2X	30.8	8.0	0.0	0.0	29.8	70
O'S GOLD SX 5500A	N 2X	29.2	6.6	0.0	0.0	30.5	71
HORIZON KR 870	N 2X	25.8	7.5	0.5	0.0	30.0	72
Mean		56.1		2.5		25.7	
Standard error		4.7					

Table 10. Area E 2-, 3-, and 4-year yield, moisture and stalk lodging averages of hybrids, 1971-74

BRAND & VARIETY	ACRE YIELD, B/A			STK LODGING, PCT			GRAIN MOIST, PCT		
	4-YR	3-YR	2-YR	4-YR	3-YR	2-YR	4-YR	3-YR	2-YR
ACCO U 378	96	104	88	14	12	14	24	25	24
ACCO UC 6601			82			24			22
CARGILL 449			86			20			20
CARGILL 890			91			22			20
CARGILL 930		112	83		18	23		23	23
CURRYS SC-144			88			5			20
CURRYS SC-150			88			3			27
DISCO SX-17		102	83		14	18		20	20
FUNK'S G-4321			89			8			19
FUNK'S G-4366			81			26			19
FUNK'S G-4444			86			16			21
FUNK'S G-4445			92			19			20
FUNK'S G-4465			84			19			22
MCCURDYS MSX-55A		103	88		8	11		23	24
P-A-G 344		100	73		7	11		24	24
PAYCO SX-1093		115	97		6	3		27	30
PIONEER 3366			88			9			25
PIONEER 3388	104	107	90	5	4	5	23	23	23
PRIDE R-522			87			10			19
PRIDE R-728	86	91	65	26	25	31	22	20	19
PRIDE R-793			85			5			23
PRIDE R-803			94			8			24
RENK RK 66			88			5			19
TROJAN TXS 108A			88			6			22
TROJAN TXS 113		111	86		9	12		24	25
WILSON 1016		97	81		15	19		20	20
WILSON 1017	93	102	80	23	25	26	19	19	19

Table 11. 1974 Corn Performance Trial, Area C1(irrigated), James Valley Research Farm, Redfield

BRAND AND VARIETY	TYPE AND CROSS	YIELD 8/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
CURRY SC-142	N 2X	108.3	0.0	0.0	0.0	23.6	2
SOKOTA SS-51	N M2X	104.6	0.0	0.0	0.0	16.8	1
FONTANELLE 400	N 2X	103.0	0.0	0.0	0.0	24.2	3
SOKOTA SS-67	N M2X	101.6	0.0	0.0	0.0	25.0	5
MC CURDY MSX 44A	N 2X	100.0	0.0	0.0	0.0	23.8	6
O'S GOLD SX 1100	N 2X	98.0	0.0	0.0	0.0	22.7	7
DISCO SX 16	N 2X	97.7	0.0	0.0	0.0	23.6	8
RENK RK 44	N 2X	96.9	0.0	0.0	0.0	23.0	11
MC CURDY MSX 24	N 2X	96.7	0.0	0.0	0.0	15.8	4
TROJAN TXS 94	N 2X	94.7	0.0	0.0	0.0	19.6	9
PIONEER 3780	N 2X	93.3	0.0	0.0	0.0	18.0	10
FUNK'S G-4288	N 3X	91.4	0.0	0.0	0.0	19.8	15
PRIDE R-221	N 3X	91.4	0.0	0.0	0.0	16.4	12
TROJAN TX 90	N 3X	91.4	0.0	0.0	0.0	17.2	13
ACCO UC 2901	N 2X	90.8	0.0	0.0	0.0	19.3	16
PAYCO SX 680	N 2X	90.7	0.0	0.0	0.0	19.4	17
MC CURDY MSP 101	N 3X	89.9	0.0	1.0	0.0	17.2	14
PRIDE R-200A	N 2X	89.8	0.0	0.0	0.0	19.4	19
PRIDE 4404	N 2X	88.9	0.0	0.0	0.0	19.2	21
PIONEER 3596	N 2X	88.8	0.0	0.5	0.0	17.5	18
SOKOTA TS-49	N 2X	88.6	0.0	0.0	0.0	19.7	23
O'S GOLD SX 900	N M2X	88.1	0.0	0.5	0.0	17.0	20
PAYCO SX 865	N 2X	88.1	0.0	0.0	0.0	26.1	30
RENK RK 11AA	N 2X	87.4	0.0	0.0	0.0	18.1	24
ACCO UC 1151	N 2X	87.3	0.0	0.0	0.0	17.5	22
SOKOTA MS-59A	N M2X	86.8	0.0	0.0	0.0	18.1	25
ACCO UC 1901	N 2X	85.2	0.0	0.0	0.0	17.5	26
ACCO UC 3201	N 2X	84.5	0.0	0.0	0.0	23.7	33
FUNK'S G-4321	N 2X	84.3	0.0	0.0	0.0	23.6	34
ACCO UC 2301	N 2X	83.7	0.0	0.5	0.0	17.9	27
FUNK'S G-4444	N 2X	83.5	0.0	0.0	0.0	25.3	36
DISCO SX 14	N 2X	83.4	0.0	0.0	0.0	19.4	29
PIONEER 3785	N 2X	81.8	0.0	0.0	0.0	16.8	28
MC CURDY MSP 1118	N 3X	81.7	0.0	0.0	0.0	18.4	31
PAYCO SX 775	N 2X	80.8	0.0	0.0	0.0	18.4	32
MC CURDY MSP 333	N 3X	79.5	0.0	0.0	0.0	21.2	37
RENK RK 66	N 2X	78.9	0.0	0.0	0.0	25.1	41
TROJAN TXS 92	N 2X	77.7	0.0	1.1	0.0	15.5	35
SDAES SD 250	T 4X	76.8	0.0	0.0	0.0	18.2	38
FUNK'S G-4366	N 3X	75.9	0.0	0.0	0.0	23.1	44
ACCO U 334	N 3X	74.9	0.0	0.0	0.0	19.9	42
SDAES SD 200	N 2X	74.6	0.0	0.0	0.0	16.7	39
TROJAN TXS 85	N 2X	72.3	0.0	0.0	0.0	15.8	40
PRIDE R-123	N 2X	72.1	0.0	0.0	0.0	17.8	43
PRIDE R-290	N 2X	71.9	0.0	0.0	0.0	19.1	45
CURRY SC-145	N 2X	68.4	0.0	0.0	0.0	25.4	47
PIONEER 3764	N 2X	65.0	0.0	0.0	0.0	19.6	46
FONTANELLE 580	N 2X	48.7	0.0	0.0	0.0	46.7	48
Mean		85.8		0.2		25.2	
Standard error		4.0					

Table 12. 1974 Corn Performance Trial, Area C1(dryland), James Valley Research Farm, Redfield

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
FUNK'S G-4288	N 3X	47.3	0.0	0.0	0.0	22.4	2
PIONEER 3785	N 2X	46.2	0.0	0.0	0.0	16.5	1
ACCO UC 2301	N 2X	43.7	0.0	0.0	0.0	18.5	4
FUNK'S G-4444	N 2X	43.3	0.0	0.0	0.0	24.7	5
PIONEER 3965	N 3X	43.2	0.0	0.0	0.0	16.1	3
CURTIS A201	N 2X	43.0	0.0	0.0	0.0	26.7	7
ACCO U 334	N 3X	40.9	0.0	0.9	0.0	19.8	8
SDAES PP 198	N 4X	40.5	0.0	17.1	0.0	15.1	10
SDAES PP 147	N 4X	40.0	0.0	1.8	0.0	15.1	6
SOKOTA SS-67	N M2X	39.9	0.0	0.0	0.0	27.3	17
CURRY SC-145	N 2X	39.6	0.0	0.0	0.0	29.8	18
PAYCO SX 680	N 2X	39.6	0.0	0.0	0.0	16.9	9
FUNK'S G-4321	N 2X	39.4	0.0	0.0	0.0	22.7	16
PRIDE 4404	N 2X	38.8	0.0	0.0	0.0	19.6	13
SDAES PP 199	N 3X	38.7	0.0	0.0	0.0	17.9	11
ACCO UC 1151	N 2X	38.7	0.0	0.9	0.0	19.7	15
PIONEER 3816	N 4X	38.6	0.0	0.0	0.0	18.0	12
FONTANELLE 400	N 2X	38.1	0.0	1.6	0.0	24.4	19
SDAES PP 171	N 3X	37.2	0.0	0.9	0.0	14.0	14
SDAES SD 220	T 4X	34.9	0.0	0.0	0.0	16.0	20
CURTIS 459	N 2X	34.9	0.0	2.8	0.0	29.4	26
SDAES PP 146	N 4X	34.0	0.0	4.3	0.0	15.1	21
CURRY SC-144	N 2X	33.1	0.0	0.8	0.0	25.6	27
ACCO U 314	N 3X	32.4	0.0	0.0	0.0	16.8	23
TROJAN TXS 92	N 2X	32.1	0.0	1.6	0.0	15.1	22
PRIDE R-221	N 3X	32.0	0.0	0.0	0.0	17.7	24
ACCO U 324	N 3X	31.7	0.0	0.0	0.0	17.3	25
PRIDE R-123	N 2X	29.9	0.0	0.0	0.0	16.1	28
ACCO DC 147	N 4X	29.8	0.0	0.0	0.0	20.1	29
FUNK'S G-4366	N 3X	28.8	0.0	3.1	0.0	26.9	36
PRIDE R-290	N 2X	28.7	0.0	0.9	0.0	21.9	33
PAYCO SX 775	N 2X	28.6	0.0	0.0	0.0	19.8	32
SDAES SD 200	N 2X	28.2	0.0	7.5	0.0	15.8	31
DISCO SX-9	N 2X	28.0	0.0	1.1	0.0	16.2	30
SDAES SD 230	T 4X	27.7	0.0	11.8	0.0	21.1	38
PIONEER 3932A	N 2X	26.6	0.0	0.9	0.0	17.5	34
TROJAN TXS 85	N 2X	25.9	0.0	0.0	0.0	15.5	35
SOKOTA TS-46	N 2X	25.8	0.0	0.0	0.0	18.8	37
TROJAN TX 90	N 3X	25.1	0.0	0.0	0.0	16.6	39
CURTIS 521	N 2X	25.1	0.0	0.0	0.0	22.4	40
SDAES SD 250	T 4X	23.9	0.0	0.0	0.0	20.8	41
PAYCO 3X 783	N 3X	22.9	0.0	0.0	0.0	22.5	43
TROJAN TXS 94	N 2X	22.3	0.0	0.0	0.0	16.8	42
SOKOTA MS-59A	N M2X	19.9	0.0	16.5	0.0	21.1	44
FONTANELLE 580	N 2X	14.2	0.0	0.0	0.0	41.3	45
Mean		33.4		1.7		20.2	
Standard error		5.9					

Table 13. Area C1(irrigated) 2-, 3-, and 4-year yield, moisture and stalk lodging averages of hybrids, 1971-1974

BRAND AND VARIETY	ACRE YIELD, B/A			STK LODGING, PCT			GRAIN MOIST, PCT		
	4-YR	3-YR	2-YR	4-YR	3-YR	2-YR	4-YR	3-YR	2-YR
ACCO U-334	107	102	104	7	9	0	24	23	20
ACCO UC 2901			109			1			21
ACCO UC 3201		107	113		2	0		26	22
ACCO UC1151			110			1			19
CURRY'S SC 142	119	109	117	3	3	0	28	28	25
DISCO SX 14		103	104		9	1		23	21
DISCO SX 16		112	114		2	1		27	24
MC CURDYS MSP 1118			106			0			20
MC CURDYS MSP 333	111	108	113	3	3	0	26	25	23
O'S GOLD SX900			100			3			20
PAYCO SX 775		104	108		6	0		23	21
PAYCO SX 865		107	119		1	0		28	26
PIONEER 3780		108	114		3	0		24	21
PIONEER 3785			92			1			20
PRIDE R-200A	109	108	108	6	6	1	23	23	21
PRIDE R-221			107			1			19
PRIDE R-290	117	110	114	7	7	1	24	22	21
RENK RK 110A		105	116		9	0		23	21
RENK RK 44	124	122	128	2	2	1	27	27	24
SDAES SD 200	92	85	85	8	9	3	21	21	19
SDAES SD 250	96	92	101	10	10	3	24	24	20
SOKOTA TS-49			108			1			21
TROJAN TX 90		94	96		4	1		21	19
TROJAN TXS 85		87	90		5	0		20	18
TROJAN TXS 92			98			2			18
TROJAN TXS 94		106	112		5	0		23	21

Table 14. Area C1(dryland) 2-, 3-, and 4-year yield, moisture and stalk lodging averages of hybrids, 1971-1974

BRAND AND VARIETY	ACRE YIELD, B/A			STK LODGING, PCT			GRAIN MOIST, PCT		
	4-YR	3-YR	2-YR	4-YR	3-YR	2-YR	4-YR	3-YR	2-YR
ACCO UC 147	58	67	62	2	2	1	21	19	18
ACCO U-334			63			2			20
ACCO UC1151			60			1			20
CURRY'S SC144		68	61		2	0		27	25
CURTIS A201			68			0			26
DISCO SX 9			59			1			17
PAYCO SX 775		68	61		1	1		23	21
PIONEER 3816			64			0			19
PRIDE R-221			60			0			19
PRIDE R-290	60	67	59	1	0	0	26	24	22
SDAES PP 147	55	59	57	2	1	2	20	19	18
SDAES PP 171			53			0			17
SDAES SD 200	45	45	36	4	4	4	20	19	17
SDAES SD 220		48	45		3	2		19	17
SDAES SD 230			47			7			21
SDAES SD 250	51	59	52	3	3	2	23	22	21
TROJAN TX 90		62	54		0	1		20	18
TROJAN TXS 85		50	47		2	1		19	17
TROJAN TXS 92			56			1			17
TROJAN TXS 94		66	53		1	1		21	19

Table 15. 1974 Corn Performance Trial, Area C2, Wm. Fijala Farm, Geddes

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
PIONEER 3388	N M2X	35.6	0.0	0.0	0.0	32.9	1
HORIZON MY-T 544	N 3X	33.2	0.0	0.0	0.0	34.2	5
SDAES PP 147	N 4X	31.3	0.0	1.8	0.0	16.8	2
SDAES PP 199	N 3X	31.0	0.9	0.9	0.0	22.6	4
FUNK'S G-4288	N 3X	30.9	0.0	1.8	0.0	24.3	6
HORIZON KR 103	N 2X	30.7	0.0	2.6	0.9	18.6	3
ASGROW RX 64	N 2X	30.2	0.0	0.0	0.0	29.4	9
CURRY TC-343	N 3X	29.8	0.0	0.0	2.7	22.2	7
CURRY SC-145	N 2X	29.6	0.0	0.0	0.0	30.1	11
WILSON 1500	N 2X	29.4	0.0	0.0	0.0	32.5	13
TROJAN TX 90	N 3X	29.1	0.0	0.0	1.9	21.7	8
ASGROW RX 58	N 2X	28.4	0.0	1.8	0.0	33.1	15
FUNK'S G-4321	N 2X	28.1	0.0	1.0	0.0	29.1	14
FARMERS 4525 XL	N 2X	26.9	0.0	1.7	0.0	31.1	18
SDAES PP 198	N 4X	26.9	0.0	0.9	0.9	17.6	10
ACCO UC 3301	N 2X	26.4	0.0	1.0	0.0	29.1	17
WILSON 1017	N 2X	26.4	0.0	0.0	0.0	32.2	21
SDAES PP 146	N 4X	26.2	0.0	0.0	0.0	17.0	12
CURRY SC-142	N 2X	25.9	0.0	0.0	0.0	28.8	19
TROJAN TX 100	N 2X	25.6	0.0	0.0	0.0	27.6	20
SDAES PP 171	N 3X	24.2	0.0	1.9	0.0	17.0	16
TROJAN TXS 94	N 2X	23.7	0.0	0.0	0.0	21.8	22
CURRY TC-344	N 3X	23.5	0.0	1.0	0.0	35.0	25
PRIDE R-450	N 2X	23.4	0.0	0.0	0.0	39.9	29
FUNK'S G-4366	N 3X	23.1	0.0	2.6	0.0	29.0	24
TROJAN TXS 99	N 2X	23.0	1.0	1.0	0.0	25.4	23
FARMERS 3553 XL	N M2X	22.9	0.0	0.9	0.0	33.5	26
HORIZON KR 105	N 3X	22.1	0.0	0.0	0.0	33.0	28
WILSON 1016	N 2X	21.4	0.0	0.9	0.0	27.5	27
TODD M 68	N 2X	20.6	0.0	0.0	0.0	32.1	30
DISCO SX 17	N 2X	20.4	0.0	0.0	0.0	33.2	31
DISCO SX 1104	N 2X	20.1	0.0	1.9	1.9	34.8	34
TODD MX 69	N M2X	19.3	0.0	0.0	0.9	39.1	38
ACCO U 348	N 3X	19.3	0.0	1.8	0.0	35.5	37
O'S GOLD SX 1100	N 2X	19.2	0.0	0.0	0.0	31.9	35
TODD M 58	N 2X	19.2	0.0	0.0	0.0	34.9	36
PIONEER 3535	N 2X	19.1	0.0	0.0	0.0	28.4	32
PIONEER 3366	N 2X	18.8	0.0	0.0	0.0	38.2	40
ACCO UC 6601	N 2X	18.8	0.0	0.0	0.0	47.3	47
PIONEER 3596	N 2X	18.2	0.0	0.0	0.0	26.0	33
DISCO SX 16	N 2X	18.1	0.0	1.7	0.0	34.9	41
FUNK'S G-4444	N 2X	17.9	0.0	1.0	0.0	34.6	42
PRIDE R-522	N 2X	17.2	0.0	0.0	0.0	36.9	45
ACCO UC 4201	N 2X	17.1	0.0	0.0	0.0	29.5	39
ACCO UC 3601	N 2X	17.1	0.9	0.0	0.0	38.0	46
PIONEER 3543	N 3X	17.0	0.0	0.9	0.0	33.3	43
ACCO UC 4561	N 2X	16.8	0.0	0.0	0.0	33.6	44
TROJAN TXS 102	N 2X	15.8	0.0	0.0	0.8	36.1	48
HORIZON KR 870	N 2X	14.7	0.0	0.0	0.0	45.0	50
WILSON 2317	N M2X	14.0	0.0	0.0	1.7	34.7	49
SOKOTA TS-82	N 2X	11.1	0.0	0.0	0.0	46.6	51
TODD MX 73	N M2X	8.0	0.0	0.0	0.0	48.9	52
CURTIS 426	N 2X	7.8	0.0	1.8	0.0	51.1	55
O'S GOLD SX 5500A	N 2X	7.8	0.0	0.0	0.0	49.2	54
CURRY SC-150	N 2X	7.6	0.0	0.9	0.0	47.2	53
Mean		22.0		0.6		32.3	
Standard error		3.6					

Table 16. 1974 Corn Performance Trial, Area D3, Plant Science Farm, Brookings

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
HORIZON KR 103	N 2X	59.7	0.0	1.1	0.0	14.9	1
FARMER'S 4434XL	N 2X	57.8	0.0	0.0	0.0	14.6	2
PRIDE R-200A	N 2X	57.1	0.0	2.2	0.0	15.0	3
O'S GOLD SX 1100	N 2X	56.5	0.0	1.1	0.0	16.4	4
CURTIS A201	N 2X	55.0	0.0	0.7	0.0	18.5	8
PIONEER 3785	N 2X	54.6	0.0	0.5	0.0	15.5	5
P-A-G SX 67	N 2X	54.5	0.0	0.0	0.0	16.3	6
SOKOTA TS-67	N 2X	54.2	0.0	0.0	0.0	18.1	9
PAYCO SX 680	N 2X	53.7	0.0	0.0	0.0	14.5	7
TROJAN TXS 94	N 2X	52.9	0.0	0.0	0.0	14.8	10
CURRY'S SC-142	N 2X	52.5	0.0	4.7	0.0	18.8	14
SOKOTA SS-51	N M2X	52.4	0.0	0.6	0.0	14.7	11
PAYCO SX 775	N 2X	51.4	0.0	1.1	0.0	16.7	13
ASGROW RX 53	N 2X	51.3	0.0	1.1	0.0	15.4	12
PAYCO SX 865	N 2X	50.4	0.0	1.4	0.0	18.8	19
MC CURDY MSX 24	N 2X	50.3	0.0	0.6	0.0	14.5	15
SOKOTA TS-49	N 2X	50.1	0.0	0.6	0.0	14.9	16
ASGROW RX 58	N 2X	49.9	0.0	2.2	0.0	18.3	21
RENKRK 44	N 2X	49.8	0.0	1.1	0.0	17.4	20
SECURITY SSX 97	N 2X	49.7	0.0	0.6	0.0	15.5	18
TROJAN TXS 92	N 2X	49.6	0.0	1.2	0.0	15.0	17
CARGILL 846	N 2X	48.1	0.0	0.6	0.0	16.0	23
ASGROW RX 42	N 2X	48.1	0.0	0.0	0.0	15.1	22
FUNK'S G-4444	N 2X	48.1	0.0	1.9	0.0	18.8	28
CARGILL 863	N M2X	47.7	0.0	2.8	0.0	16.4	24
SECURITY SSX 107	N 2X	47.5	0.0	0.5	0.0	18.8	30
SECURITY SSX 105	N 2X	47.2	0.0	0.0	0.0	18.8	33
SOKOTA TS-46	N 2X	47.0	0.0	0.6	0.0	15.9	26
MC CURDY MSX 44A	N 2X	46.9	0.0	0.5	0.0	17.8	32
O'S GOLD SX 990	N M2X	46.8	0.0	0.0	0.0	15.3	25
SOKOTA MS-59A	N M2X	46.6	0.0	0.0	0.0	15.5	27
PAYCO 3X 783	N 3X	46.4	0.0	1.1	0.0	15.9	31
FUNK'S G-4180	N M2X	46.0	0.0	0.0	0.0	14.4	29
RENK RK 11AA	N 2X	45.9	0.0	1.1	0.0	15.7	34
RENK RK 66	N 2X	45.8	0.0	0.6	0.0	19.1	40
ACCO UC 3301	N 2X	45.7	0.0	0.6	0.0	19.8	41
TODD M50	N 2X	45.6	0.0	0.0	0.0	16.2	36
CURTIS 521	N 2X	45.6	0.0	1.6	0.0	15.1	35
PIONEER 3780	N 2X	45.0	0.0	0.6	0.0	15.0	37
ACCO UC 1901	N 2X	44.9	0.0	1.8	0.0	15.2	38
MC CURDY MSX 46	N 2X	44.9	0.0	1.1	0.0	18.1	42
FUNK'S G-4366	N 3X	44.1	0.0	3.0	0.0	18.4	49
PRIDE R-221	N 3X	44.1	0.0	0.6	0.0	14.4	39
CURRY'S SC-145	N 2X	44.0	0.0	0.0	0.0	18.5	46
DISCO SX 14	N 2X	43.9	0.0	0.6	0.0	16.5	43
FUNK'S G-4321	N 2X	43.9	0.0	1.6	0.0	17.2	44
ACCO U 348	N 3X	43.7	0.0	0.0	0.0	18.0	47
DISCO SX 16	N 2X	43.7	0.0	1.7	0.0	18.7	50
FUNK'S G-4288	N 3X	43.1	0.0	0.6	0.0	16.4	48
TROJAN TX 90	N 3X	42.9	0.0	1.8	0.0	14.8	45
FUNKS G-WX520	N 2X	42.7	0.0	0.0	0.0	17.1	52
SDAES EX 96	N 3X	42.4	0.0	0.8	0.0	15.9	51
FUNK'S G-4252	N 3X	42.3	0.0	0.6	0.0	16.0	53
MC CURDY 36M	N M2X	42.2	1.9	0.0	0.0	18.0	56
MC CURDY 72-23	N 2X	41.9	0.0	1.7	0.0	18.6	57
ACCO U 334	N 3X	41.9	0.0	1.2	0.0	15.8	54
SECURITY SSX 108	N 2X	41.8	0.0	4.0	0.0	20.7	60
HORIZON MY-T 121	N 2X	41.6	0.0	1.1	0.0	19.8	59
ACCO UC 2901	N 2X	41.6	0.0	1.1	0.0	15.8	55
P-A-G SX 69	N M2X	41.5	0.0	1.1	0.0	18.4	58
CARGILL 434	N 3X	40.0	0.0	4.0	0.0	17.0	61

Table 16. Continued

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
SDAES EX 95	N 3X	39.1	0.0	1.8	0.0	17.5	64
TODD M58	N 2X	38.4	0.0	1.7	0.0	20.4	70
PRIDE 4404	N 2X	38.4	0.0	0.0	0.0	18.5	67
CURTIS 5301	N 3X	38.3	0.0	0.0	0.0	18.0	65
PIONEER 3764	N 3X	38.3	0.0	0.6	0.0	14.2	62
TROJAN TXS 85	N 2X	38.1	1.7	0.0	0.0	14.6	63
ACCO UC 3201	N 2X	38.1	0.0	0.0	0.0	18.5	68
MC CURDY 73-9	N M2X	37.4	0.0	0.0	0.0	18.1	69
TODD 330	N 3X	37.2	0.0	0.0	0.0	15.2	66
HORIZON KR 105	N 3X	36.9	0.0	1.1	0.0	19.8	73
PRIDE R-290	N 2X	36.7	0.0	5.1	0.0	17.6	72
SDAES EX 94	N 4X	36.1	0.0	0.0	0.0	17.5	71
ACCO UC 4561	N 2X	36.0	0.0	9.1	0.0	15.8	74
CARGILL 449	N 3X	35.5	1.2	2.5	0.0	17.7	75
O'S GOLD SX 2200A	N 2X	35.5	0.0	0.0	0.0	21.0	77
TODD M68	N 2X	34.9	0.0	0.6	0.0	19.1	76
SECURITY SSX 112	N 2X	32.1	0.0	0.0	0.0	30.4	80
HORIZON MY-T 120	N 2X	31.9	0.0	0.5	0.0	16.9	78
O'S GOLD SX 5500A	N 2X	31.3	0.0	1.2	0.0	33.2	81
P-A-G SX 237	N 2X	29.1	0.0	0.0	0.0	18.5	79
Mean		44.6		1.0		17.2	
Standard error		3.4					

Table 17. Area C2 2-, 3-, and 4-year yield, moisture and stalk lodging averages of hybrids, 1971-74

BRAND & VARIETY	ACRE YIELD, B/A			STK LODGING, PCT			GRAIN MOIST, PCT		
	4-YR	3-YR	2-YR	4-YR	3-YR	2-YR	4-YR	3-YR	2-YR
ACCO U 348		63	41		8	12		30	31
ACCO UC 3301		70	47		3	5		25	26
ACCO UC 3601		63	40		2	2		33	34
CURRYS SC-142			47			4			24
CURRYS SC-150			45			2			40
CURRYS TC-344			50			1			29
DISCO SX-17			50			3			26
O'S GOLD SX 1100		66	44		2	2		26	26
PIONEER 3366			50			2			35
PIONEER 3388	67	74	58	0	0	0	34	32	32
PRIDE R-450	58	69	46	2	3	4	30	28	31
PRIDE R-522			43			2			27
SDAES PP 147	53	58	47	5	1	2	15	14	15
SDAES PP 171			45			1			16
TROJAN TXS 94			48			3			20
TROJAN TXS 102		66	45		2	2		28	29
WILSONS 1016	58	66	42	7	2	3	26	25	25
WILSONS 1017			47			1			28

Table 18. Area D3 2-, 3-, and 4-year yield, moisture and stalk lodging averages of hybrids, 1971-74

BRAND & VARIETY	ACRE YIELD, B/A			STK LODGING, PCT			GRAIN MOIST, PCT		
	4-YR	3-YR	2-YR	4-YR	3-YR	2-YR	4-YR	3-YR	2-YR
ACCO UC 3201		88	70		5	7		21	19
ACCO UC 3301	86	88	71	6	6	6	21	20	20
ACCO U 334	83	85	69	5	5	5	20	19	17
CARGILL 846			80			1			18
CARGILL 863			72			4			17
CURTIS A201			81			6			20
DISCO SX-14		84	65		4	6		20	18
DISCO SX-16			75			2			19
FARMER'S 4434			78			6			16
FUNK'S G-4180			71			3			16
FUNK'S G-4252			64			8			17
FUNK'S G-4288			71			8			18
FUNK'S G-4321			73			4			18
FUNK'S G-4366			69			6			19
FUNK'S G-4444			78			3			20
MCCURDYS 36M			70			3			19
MCCURDYS 72-23			69			4			19
O'S GOLD SX 1100			79			3			18
P-A-G SX 67		90	74		2	2		19	17
P-A-G SX 69			71			2			19
PAYCO SX-775		90	72		2	3		20	18
PAYCO SX-783		91	75		2	3		20	18
PAYCO SX-865		95	76		4	4		22	20
PAYCO SX-865		95	76		4	4		22	20
PIONEER 3780		91	71		4	6		19	16
PIONEER 3785			77			2			16
PRIDE R-200A		93	76		3	4		18	16
PRIDE R-221			68			3			15
PRIDE R-290	85	88	62	6	7	9	21	20	18
RENK RK 11AA	89	94	74	3	3	4	21	20	18
RENK RK 44	89	96	76	3	4	4	22	21	19
SDAES EX 94			72			2			19
SDAES EX 95			67			8			19
SDAES EX 96			69			5			17
SOKOTA TS-49			79			0			16
SOKOTA TS-67			82			2			19
TODD M50			68			4			18
TODD 330			56			12			17
TROJAN TXS 85			62			2			15
TROJAN TX 90		83	69		4	5		18	16
TROJAN TXS 92			68			3			16
TROJAN TXS 94		89	75		1	2		18	16

Table 19. Listing of the hybrid corn entries and tables where the results appear.

Company & Brand	Variety	Tables
Cargill, Inc.	432	16
1433 Cargill Bldg.	449	9,10,16
Minneapolis, MN	846	16,18
"Cargill"	863	16,18
	890	9,10
	930	9,10
Disco, Inc.	SX 9	12,14
Box 640	SX 14	11,13,16,18
Mitchell, SD	SX 16	11,13,15,16,18
"Disco"	SX 17	7,8,9,10,15,17
	SX 1104	7,9,15
Green Acres	401	7
Hartington, NE	630	9
"GreenAcres"	L 19	7,9
	S 66	9
Pioneer Seed Co.	3366	8,10,15,17
1206 Mulberry St.	3388	8,10,15,17
Des Moines, IA	3535	7,9,15
"Pioneer"	3543	7,9,15
	3571	7,8
	3596	7,11,15
	3764	11,16
	3780	6,11,13,16,18
	3785	6,11,12,13,16,18
	3816	12,14
	3932A	6,12
	3965	6,12
	3976	6
Clay Co. Seed Co.	A 201	12,14,16,18
222 Grand Ave.	426	7,9,15
Spencer, IA	459	12
"Curtis"	521	12,15
	5301	15
Sokota Hybrids	TS-46	12,16
PO B ox 250	TS-49	11,13,16,18
Brookings, SD	SS-51	11,16
"Sokota"	MX 59A	6,7,11,12,16
	SS-67	6,7,11,12
	TS-67	6,7,16,18
	TS-82	7,9,15
	MS-88	9
	SK-90	9
Curry Seed Co.	SC 142	11,13,15,16,17
Box 517	SC 144	8,10,12,14
Elk Point, SD	SC 145	7,9,11,12,15,16
"Currys"	SC 150	7,8,9,10,15,17
	TC 343	7,8,15
	TC 344	15,17
McCurdy Seed Co.	3 X 3	7,8
Fremont, IA	36M	16,18
"McCurdy"	37M	7
	MSX 24	11,16
	MSX 44A	7,9,11,16
	MSX 46	7,9,16
	MSX 55A	9,10
	MSX 60	9
	MSX 67	9
	MSX 84	9
	MSP 101	7,11
	MSP 111B	7,8,11,13
	MSP 333	11,13
	MSP 733	7,9
	72-17	7
	72-23	16,18
	73-9	16
P-A-G Seeds	344	9,10
PO Box 1200	SX 67	16,18
NorStar. Sta.	SX 69	9,16,18
Minneapolis, MN	SX 237	16
"P-A-G"	SX 397	9
Asgrow Seed Co.	RX 42	16
PO Box 2010	RX 53	16
Des Moines, IA	RX 58	7,9,15,16
"Asgrow"	RX 60	7
	RX 64	7,9,15
Wilson Hybrids	1016	7,8,9,10,15,17
Box 391	1017	7,8,9,10,15,17
Harlan, IA	1500	7,9,15
"Wilson"	2317	7,9,15
O'Gold Seed Co.	SX 900	11
PO Box 460	SX 900	6,16
Parkersburg, IA	SX 1100	6,7,8,11,15,16,17,18
"O's Gold"	SX 2200A	7,9,16
	SX 5500A	7,9,15,16
Renk Seed Co.	RK 6	6
RFD #2	RK 44	11,13,16,18
Sun Prairie, WI	RK 66	7,8,9,10,11,16
"Renk"	RK 77	7,9
	RK11AA	6,11,13,16,18
Trojan Seed Co.	TXS 85	6,11,12,13,14,16,18
Olivia, MN	TX 90	6,11,12,13,14,15,16,18
"Trojan"	TXS 92	6,11,12,13,14,16,18
	TXS 94	6,11,12,13,14,15,16,17,18
	TXS 99	15
	TX 100	15
	TXS 102	7,8,15,17
	TXS 108A	7,8,9,10
	TXS 111	7,9
	TXS 113	9,10
Pride Co., Inc.	R-123	11,12
Glen Haven, WI	R-200A	6,11,13,16,18
"Pride"	R-221	6,11,12,13,14,16,18
	R-290	6,11,12,13,14,16,18
	R-450	7,8,15,17
	R-522	7,8,9,10,15,17
	R-728	7,8,9,10
	R-793	9,10
	R-803	9,10
	4404	6,11,12,16
	6694	9
	8824	9
ACCO Seeds	U 314	12
PO Box 9	U 324	6,12
Belmond, IA	U 334	11,12,13,14,16,18
"ACCO"	U 348	15,16,17
	U 370	7,9
	U 378	7,8,9,10
	DC 147	6,12,14
	DC 598	7,8
	UC 1151	11,12,14
	UC 1901	6,11,16
	UC 2301	6,11,12
	UC 2901	11,13,16
	UC 3201	6,7,9,11,13,16,18
	UC 3301	6,7,8,9,15,16,17,18
	UC 3601	9,15,17
	UC 4201	7,9
	UC 4561	15,16
	UC 4601	7
	UC 6601	9,10,15

Table 19 (Cont).

Company & Brand	Variety	Tables
Fontanell Hybrids	400	11,12
Nickerson, NE	580	11,12
Payco Seeds	SX 680	6,11,12,16
Box 70	SX 775	6,11,12,13,15,16,18
Dassel, MN	3X 783	12,16,18
"Payco"	SX 865	7,8,9,11,13,16,18
	SX 1093	7,8,9,10
Todd Hybrid Co.	M 30	7,9
Burlington, IN	M 50	16,18
"Todd"	M 58	7,9,15,16
	M 68	15,16
	MX 69	9,15
	MX 73	15
	330	7,8,16,18
Farmer's Hybrids	3353	15
Box 577	4229	6
Hampton, IA	4425	7,8
"Farmer's"	4434	6,16,18
	4525	7,8,15
Funk's Seed Intl.	G-4180	6,16,18
1300 W. Washington	G-4252	6,16,18
Bloomington, IL	G-4288	6,11,12,15,16,18
"Funk's"	G-4321	6,7,8,9,10,11,12,15,16,18
	G-4366	6,7,8,9,10,11,12,15,16,18
	G-4444	6,7,8,9,10,11,12,15,16,18
	G-4445	7,9,10
	G-4465	7,8,9,10
	G-WX520	6,7,9,16
	G-HO562	7,9
Miller Seed Co.	KR 99	7
PO Box 81823	KR 103	8,15,16
Lincoln, NE	KR 105	8,15,16
"Horizon"	MyT 120	7,16
	MyT 121	7,16
	MyT 544	8,15
	KR 870	8,15
Security Seed Co.	SSX 97	16
PO Box 630	SSX 105	16
Williamsburg, IA	SSX 107	16
"Security"	SSX 108	16
	SSX 112	16
South Dakota Agricultural Experiment Station "SDAES"	SD 200	6,11,12,13,14
	SD 220	6,12,14
	SD 230	12,14
	SD 250	6,11,12,13,14
	EX 82	6
	EX 94	16,18
	EX 95	16,18
	EX 96	16,18
	EX 100	6
	EX 101	6
	EX 102	6
	EX 103	6
	PP 146	12,15
	PP 147	12,14,15,17
	PP 171	12,14,15,17
	PP 178	7,8
	PP 183	6
	PP 197	7,9
	PP 198	12,15
	PP 199	12,15